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Serial no. 10/825,882  
Filed 4/17/2004  
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## REMARKS

### Claims 1-22

Claims 1-22 have been rejected. Claims 1-10, 12-20, and 22 have been rejected under 35 USC 102(b) as being anticipated by Staple (6,750,655). Claims 11 and 21 have been rejected under 35 USC 103(a) as being unpatentable over Staple in view of Montrose (2004/0257086) and Martin (2004/0218334), respectively. Applicant respectfully traverses these rejections as is now discussed in more detail.

### *Claim interpretation is the point of disagreement between Applicant and the Examiner*

In reviewing the Examiner's Final Office Action, Applicant believes that the Examiner would agree with Applicant that the point of disagreement between Applicant and the Examiner is the interpretation of the claims. In particular, each of the independent claims 1, 12, and 19 is limited to a MEM device assembly "having a MEM device capable of being individually written to *but incapable of being electrically read*." It is the interpretation of "a MEM device . . . *incapable of being electrically read*" that controls whether the claimed invention is patentable or not.

The Examiner has stated that he "believes any electrical device can be read electrically by attaching a sensor to the device." (Final Office Action, p. 2, para. 2) "Therefore, a MEM device incapable of being [electrically] read is absolutely not true." (Id.) As a result, the Examiner "considers '[a] MEM device . . . incapable of being electrically read as a MEM device that does include a separate sensor (detector) connected to each MEM device for electrically reading the MEM device.'" (Id.) Thus, under the Examiner's interpretation of a MEM device that is "incapable of being *electrically* read" as including a MEM device that can have a separate sensor or detector connected thereto for electrically reading the MEM device, Staple does indeed anticipate the claimed invention, because Staple teaches such a separate sensor or detector, as

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described the Examiner, and indeed as discussed by Applicant in the previous office action response.

By comparison, in the previous office action response, Applicant has interpreted a MEM device that is "incapable of being electrically read" as one that "lacks the necessary ability, capacity, or power to be electrically read." (Office Action Response, p. 10) Thus, under Applicant's interpretation of a MEM device that is "incapable of being electrically read" as including a MEM device that lacks the necessary ability, capacity, or power to be electrically read, Staple does not anticipate the claimed invention. This is because since Staple teaches that a sensor or detector can be attached to the MEM device in Staple to electrically read the MEM device, the MEM device in Staple must inherently have the "necessary ability, capacity, or power" to be electrically read, and thus, in contradistinction to the claimed invention, is "capable of being electrically read."

Therefore, Applicant believes, as stated above, that the Examiner would agree that the issue here is whether the Examiner's interpretation of the claim limitations is correct, such that the prior art, and particularly Staple, disclose the claimed invention as interpreted by the Examiner, or whether Applicant's interpretation of the claim limitation is correct, such that the prior art, and particularly Staple, does not disclose the claimed invention as interpreted by Applicant. That is, Applicant believes that there is no disagreement as to what Staple discloses. Rather, the issue here is how to interpret the claims in the first place. If you subscribe to the Examiner's interpretation of the claims, then Staple's teachings in particular anticipate the independent claims. By comparison, if you subscribe to Applicant's interpretation of the claims, then Staple's teachings in particular do not anticipate the independent claims.

As a result, Applicant organizes the remainder of this final office action response/request for reconsideration as follows. First, Applicant explains how the claims should be properly interpreted, in a way that yields the cited prior art as not anticipating nor rendering obvious the

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claimed invention. Second, Applicant explains why the Examiner's claim interpretation of the claims is incorrect.

Proper interpretation of limitation "a MEM device . . . incapable of being electrically read"

Applicant begins with explaining the proper interpretation of the claim limitation "a MEM device . . . incapable of being electrically read." The Federal Circuit case law claim interpretation process, as is described in more detail below, is as follows:

- 1) Generally, claim language is to be given its ordinary and accustomed meaning.
- 2) If according claim language its ordinary and accustomed meaning deprives the claim clarity and there is no way by which the scope of the claim can be ascertained, then the claim language is not given its ordinary and accustomed meaning.
- 3) In such situations, instead of giving the claim language its ordinary and accustomed meaning, intrinsic and extrinsic evidence is referenced to define the claim language in question.

Applicant now provides Federal Circuit case law support for each of these three steps in the claim interpretation process.

As to the first step of the claim interpretation process, the general rule of claim interpretation is that terms in a claim are to be given their ordinary and accustomed meaning. (Renishaw PLC v. Marpos Societa per Azioni, 158 F.3d 1243, 1249, 48 USPQ2d 1117, 1121 (Fed. Cir. 1998); York Prods., Inc. v. Central Tractor Farm & Family Ctr., 99 F.3d 1568, 1572, 40 USPQ2d 1619, 1622 (Fed. Cir. 1996)) Here, there is no doubt as to the "ordinary and accustomed meaning" as to the language "a MEM device . . . incapable of being electrically read." That is, if *a thing* is incapable of being *something*, then that thing is not capable of being that something. A MEM device incapable of being electrically read thus means quite simply just that, that it is a MEM device that is not capable of being electrically read. There is no lack of clarity as

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to the claim language, such that the general rule that this claim terminology is to be given its ordinary and accustomed meaning controls and governs.

However, to be complete, Applicant considers the exception to the general rule outlined by the Federal Circuit. That is, as to the second step of the claim interpretation process, it may be required to enter the definition of a claim term other than its ordinary and accustomed meaning where such meaning so deprives the claim of clarity that there is no means by which the scope of the claim may be ascertained from the language used. (*Eastman Kodak Co. v. Goodyear Tire & Rubber Co.*, 114 F.3d 1547, 1554, 42 USPQ2d 1737, 1741 (Fed. Cir. 1997), overruled on other grounds by *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 46 USPQ2d 1169 (Fed. Cir. 1998) (en banc); *J.T. Eaton & Co. v. Atlantic Paste & Glue Co.*, 106 F.3d 1563, 1568, 41 USPQ 1641, 1646 (Fed. Cir. 1997); *North Am. Vaccine, Inc. v. American Cyanamid Co.*, 7 F.3d 1571, 1576, 28 USPQ 2d 1333, 1336 (Fed. Cir. 1993); *Comark Communications, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187, 48 USPQ2d 1001, 1005 (Fed. Cir. 1998))

Thus, as to the third step of the claim interpretation process, in such circumstances, a term used in the claim invites or requires reference to intrinsic, or in some cases, extrinsic, evidence to determine the scope of the claim language. (*Johnson Worldwide Assocs., Inc. v. Zebco Corp.*, 175 F.3d 985, 50 USPQ2d 1607, 1611 (Fed. Cir. 1999) (citing *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1583, 39 USPQ2d 1573, 1577 (Fed. Cir. 1996)) Even though Applicant strongly submits that the terminology “a MEM device . . . incapable of being electrically read” is clear on its face, and thus should be accorded its ordinary and accustomed meaning, for sake of completeness Applicant now looks to intrinsic evidence and extrinsic evidence to further buttress this interpretation.

With respect to intrinsic evidence, Applicant notes that the patent application as filed provides description as to what is meant by “a MEM device . . . incapable of being electrically read.” For instance:

In at least some embodiments of the invention, the MEM device assembly 300 is incapable of being electrically read. That is, the current state of the MEM

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device 306 of the MEM device assembly 300 is unable to be electrically determined.

(P. 8, ll. 15-18) Therefore, intrinsic evidence also suggests the same interpretation of “a MEM device . . . incapable of being electrically read” as this terminology’s ordinary and accustomed meaning: that, for instance, the current state of such a MEM device is unable to be electrically determined. Indeed, the patent application as filed provides an example of such a MEM device:

For instance, the MEM device 306 may in one embodiment have two states: an off state in which it does not modulate light, and an on state in which it does modulate light. Whether the MEM device 306 is in the off state or in the on state, however, cannot be determined by sending electrical signals to and receiving electrical signals from the MEM device 306. Rather, the MEM device 306 may have its state determined optically, by examining whether the MEM device 306 is or is not currently modulating light.

(P. 8, ll. 18-24) Therefore, in this example, there is a MEM device that the state of which cannot be determined *electrically* (i.e., by sending electrical signals to and receiving electrical signals from the device), but rather can only be determined *optically*.

Extrinsic evidence of the meaning of the terminology “a MEM device . . . incapable of being electrically read” also points to the same meaning that such a device is one that is not capable of being electrically read or determined. For extrinsic evidence, Applicant again uses the online dictionary [www.dictionary.com](http://www.dictionary.com), as in the previous office action response. The relevant definition of the word “incapable” as defined in the this dictionary is, as has been noted above, “lacking the necessary ability, capacity, or power: incapable of carrying a tune; incapable of love.” Thus, the types of MEM devices to which the claimed invention is limited are those that lack the necessary ability, capacity, or power to be electrically read. Such MEM devices may be *optically* read, for example, but they are *incapable* of being *electrically* read.

Applicant therefore strongly posits that the proper interpretation of the claim language “a MEM device . . . incapable of being electrically read” means just that, a MEM device that is not capable of being *electrically* read. On its face, this claim language is clear, and therefore is to be

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accorded its ordinary and accustomed meaning, as suggested by Federal Circuit case law. Furthermore, even if you proceed on the presumption, however incorrect, that this language is not clear, resorting to intrinsic evidence (the patent application as filed) and extrinsic evidence (an external dictionary) results in the same interpretation of this claim language. Therefore, because the claimed invention is limited to a MEM device that is simply incapable of being electrically read, whereas Staple and the other cited prior art disclose a MEM device that is indeed capable of being electrically read, by using an external detector or sensor attached to the device, the claimed invention is patentable over the cited prior art.

*Examiner's interpretation of "a MEM device . . . incapable of being electrically read" is flawed*

As has been noted above, the Examiner has interpreted "a MEM device . . . incapable of being electrically read" as follows:

[E]xaminer believes any electrical device can be read electrically by attaching a sensor to the device. Therefore, a MEM device incapable of being [electrically] read is absolutely not true. For examination purposes examiner considers 'MEM device . . . incapable of being electrically read' as a MEM device that does include a sensor (detector) connected to it for electrically reading the MEM device.

(Final Office Action, p. 6, para. 7) Applicant submits that the Examiner's interpretation of "a MEM device . . . incapable of being electrically read," and indeed his logic process for reaching this interpretation, is incorrect and flawed, as is now discussed in detail.

First, let us look at the end result of the Examiner's logic process, i.e., the end interpretation by the Examiner of "a MEM device . . . incapable of being electrically read." The Examiner states that "a MEM device . . . incapable of being electrically read" is to be interpreted as "a MEM device that does include a sensor (detector) connected to it for electrically reading the MEM device." That is, the Examiner basically is interpreting a MEM device that is incapable of being electrically read as one that is capable of being electrically read by using an external sensor or detector connected to the device. Applicant therefore follows the Federal Circuit case law process as to how claim language is to be interpreted, as described in detail above, and applies it

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to the process that the Examiner followed in ultimately interpreting “a MEM device . . . incapable of being electrically read” as he did.

*Step 1 – Ordinary and accustomed meaning should be generally used*

First, as noted above, one must look to the ordinary and accustomed meaning of claim language in order to assess its meaning. As noted above, this means that you have to interpret “a MEM device . . . incapable of being electrically read” as just that – a MEM device that is not capable of being read electrically. The Examiner has clearly rejected the ordinary and accustomed meaning of “a MEM device . . . incapable of being electrically read.” Indeed, ultimately the Examiner reaches a *contradictory* meaning, that the terminology “a MEM device . . . incapable of being electrically read” can include a MEM device that is capable of being electrically read if you use an external sensor or detector connected to the device.

*Step 2 – When should ordinary and accustomed meaning not be used?*

Second, as noted above, one can depart from the ordinary and accustomed meaning of claim language where this ordinary and accustomed meaning so deprives the claim of clarity that there is no means by which the scope of the claim may be ascertained from the language used, as has been noted above. The Examiner appears to do this, stating that “examiner believes any electrical device can be read electrically by attaching a sensor to the device” and that “a MEM device incapable of being [electrically] read is absolutely not true.” Therefore, the Examiner seems to say that stating that “a MEM device . . . incapable of being electrically read” deprives the claim of clarity such that there is no way by which the scope of the claim can be ascertained from the language used.

The Examiner is incorrect, however. First, the claim language is clear on its face, and the ordinary and accustomed meaning of the terminology “a MEM device . . . incapable of being electrically read” does *not* deprive the claim of clarity, in that the scope of the claim is still readily

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ascertainable when employing the ordinary and accustomed meaning of this terminology. That is, by interpreting “a MEM device . . . incapable of being electrically read” as a device that is not capable of being read electrically, the scope of the claim is readily ascertained as being limited to such a MEM device that cannot be electrically read. There is no need to deviate from the ordinary and accustomed meaning of this claim language.

Second, the Examiner’s premises in subscribing to the deviation from the ordinary and accustomed meaning of the claim language at issue here are wrong. The Examiner states that “examiner believes any electrical device can be read electrically by attaching a sensor to the device” and that “a MEM device incapable of being [electrically] read is absolutely not true.” However, the Examiner fails to consider the teachings and statements of the patent application as filed, in which such a MEM device that is incapable of being electrically read is described. As has been noted, the patent application as filed provides an example of such a MEM device that is capable only of being optically read, and is incapable of being electrically read.

In at least some embodiments of the invention, the MEM device assembly 300 is incapable of being electrically read. That is, the current state of the MEM device 306 of the MEM device assembly 300 is unable to be electrically determined. For instance, the MEM device 306 may in one embodiment have two states: an off state in which it does not modulate light, and an on state in which it does modulate light. Whether the MEM device 306 is in the off state or in the on state, however, cannot be determined by sending electrical signals to and receiving electrical signals from the MEM device 306. Rather, the MEM device 306 may have its state determined optically, by examining whether the MEM device 306 is or is not currently modulating light.

(P. 8, ll. 15-24)

Therefore, while the Examiner may “believe” that any electrical device can be read electrically by attaching a sensor to the device, the Examiner is indeed wrong. Applicant has shown at least one example of a MEM device that is only capable of being optically read, and is incapable of being electrically read. The Examiner has not refuted this teaching of the patent application as filed, and merely makes a blanket statement that “any electrical device can be read

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electrically by attaching a sensor” without explaining in any detail how such a “sensor” could be attached to the MEM device discussed in the patent application. As a result, the Examiner stating that “a MEM device in capable of being [electrically] read is absolutely not true” is incorrect, since, indeed, the patent application as filed lists at least one example of such a MEM device. Therefore, the Examiner is incorrect in deviating from the customary and ordinary meaning of the claim language that is at issue here.

*Step 3 – Using intrinsic and extrinsic evidence to replace ordinary and accustomed meaning*

Third, as has been noted above, if one does depart from the ordinary and accustomed meaning of claim terminology, one has to rely on intrinsic evidence and extrinsic evidence to provide definition to the claim language in question. Here, the Examiner simply concludes that “[f]or examination purposes examiner considers ‘MEM device . . . incapable of being electrically read’ as a MEM device that does include a sensor (detector) connected to it for electrically reading the MEM device.” (Final Office Action, p. 6, para. 7) However, the Examiner’s conclusion begs the question as to where this substitute definition comes from.

First, as noted above, Applicant reminds the Examiner that the intrinsic evidence – the patent application as filed – supports the ordinary and accustomed meaning of the terminology “a MEM device . . . incapable of being electrically read.” The intrinsic evidence does not support the Examiner’s definition of “a MEM device . . . incapable of being electrically read” as one that includes a sensor or detector for electrically reading the MEM device. Therefore, as to the intrinsic evidence, the Examiner’s definition of the claim language at issue is improper, as this definition is found nowhere in the patent application as filed.

Second, as also has been noted above, Applicant reminds the Examiner that the extrinsic evidence – the online dictionary definition of “incapable” – also supports the ordinary and accustomed meaning of the terminology “a MEM device . . . incapable of being electrically read.” This extrinsic evidence does not support the Examiner’s definition of a “MEM device . . .

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incapable of being electrically read” as one that includes a sensor or detector for electrically reading the MEM device. Therefore, as to this extrinsic evidence, the Examiner’s definition of the claim language at issue is also improper.

The Examiner appears to base his definition of “a MEM device . . . incapable of being electrically read” on the *teachings* of the prior art reference Staple, as Staple does indeed teach a MEM device that is electrically read via the inclusion of a sensor or detector. However, the Examiner’s utilization of this *teaching* of Staple as the *definition* of “a MEM device . . . incapable of being electrically read” is improper. Staple nowhere suggests that the terminology “a MEM device . . . incapable of being electrically read” means a MEM device that can be electrically read by inclusion of a sensor or detector. That is, while Staple *teaches* a MEM device that can be electrically read by inclusion of a sensor or a detector, this teaching is inapposite as to the *meaning and definition* of “a MEM device . . . incapable of being electrically read.” Staple just is not informative in this regard, since it never says what “a MEM device . . . incapable of being electrically read” *means*. By comparison, the extrinsic evidence presented by Applicant does readily inform what the word “incapable” means, and the intrinsic evidence of the patent application as filed readily informs what the entire phrase “a MEM device . . . incapable of being electrically read” means. The Examiner is thus incorrect in relying upon a *teaching* of a prior art reference, Staple, to provide a *definition* of claim terminology, when the claim terminology in question does not actually even appear in the prior art reference.

*Examiner’s interpretation is ultimately wrong*

For all of the reasons that have been described, the Examiner is incorrect in defining “a MEM device . . . incapable of being electrically read” as a MEM device that is capable of being electrically read using a sensor or a detector. Indeed, if the Examiner’s definition of the claim language at issue were correct, then there would be no point in having claims at all. That is, if the clear language “a MEM device . . . incapable of being electrically read” can somehow be twisted

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to mean essentially the opposite – a MEM device that is capable of being electrically read if you use a sensor or a detector – then the meaning of any term in any claim immediately becomes suspect and open to contradictory definitions. At the end of the day, it is untenable to suggest that the language “a MEM device . . . incapable of being electrically read” can be interpreted to result in a contradictory definition, as a MEM device that is *capable* of being electrically read (if you use a sensor or a detector). Because subscribing to the Examiner’s incorrect interpretation of “a MEM device . . . incapable of being electrically read” is the only way in which the prior art reads on the claimed invention, the claimed invention is patentable. That is, in accordance with a correct interpretation of “a MEM device . . . incapable of being electrically read,” the claimed invention is not disclosed, suggested, or taught by the prior art.

#### Claims 23-28

Claims 23-28 have been allowed, for which Applicant thanks the Examiner.

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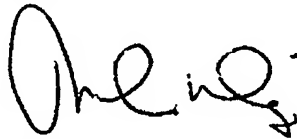
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Conclusion

Applicants have made a diligent effort to place the pending claims in condition for allowance, and request that they so be allowed. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Mike Dryja, Applicants' Attorney, at 425-427-5094, so that such issues may be resolved as expeditiously as possible. For these reasons, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully Submitted,



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